

CHUYANOV, A.; TOLKACHEV, M.

Replies to the questions on labor and wages. Mias.ind.SSSR 31
no.3:56-57 '60. (MIRA 13:9)
(Meat industry) (Wages and labor productivity)

CHUYANOV, A.; TOLKACHEV, M.

Answers to the questions on labor and wages. Mias.ind.SSSR
31 no.5:52 '60. (MIRA 13:9)
(Meat industry) (Wages and labor productivity)

CHUYANOV, A.; TOLKACHEV, M.

Answers and questions concerning labor and wages. Mias. ind.
SSSR 31 no.4:55-56 '60. (MIRA 14:7)
(Meat industry)
(Wages)

YELANSKIY, L.N.; TOLKACHEV, M.I.

Geology of the southeastern part of Kuybyshev Province in the trans-Volga portion. Geol.nefti i gaza 3 no.5:44-49 My '59.
(MIRA 12:7)

1. Kuybyshev, Nauchno-issledovatel'skiy institut neftyanoy promyshlennosti.
(Kuybyshev Province--Geology)

TOLKACHEV, M.L.

Appendicitis in typhoid fever. Klin.med., Moskva no.3:60-62 Mr '50.
(CLML 19:2)

1. Of the Hospital Surgical Clinic (Director -- Prof. G.M.Novikov)
of the Pediatric Faculty of the Second Moscow Medical Institute
imeni I.V.Stalin, Moscow.

TOLKACHEV, M.P., inzhener.

Usefulness of building enclosed shipyards. Sudostroenie 23
no.2:49-53 F '57. (MLRA 10:5)
(Shipbuilding)

LOGINOV, Sergey Petrovich; TOLKACHEV, Mikhail Petrovich; DOVZHIKOV, Ye.D.,
retsenzent; SATANOVSKIY, Ya.S., retsenzent; DORMIDONTOV, F.K., otv.
red.; FRUMKIN, P.S., tekhn. red.

[Calculation methods in shipbuilding] Metody kal'kuliatsii v sudo-
stroenii. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl.,
1961. 187 p. (MIRA 14:8)

(Shipbuilding—Accounting)

TOLKACHEV, N.A.

Determining the relatively normal forces of the frost heaving
of soils. Sbor. trud. NIIsn. no.54:165-170 '64.
(MIRA 17:10)

TOLKACHEV, N.I., agronom-ekonomist; SALMANOV, Ye.M., inzh.-mekhanik;
SINITSINA, K., red.; LUKASHEVICH, V., tekhn.red.

[Maintenance manual] Spravochnik uchetchika-zapravshchika.
Saratovskoe knizhnoe izd-vo, 1959. 183 p. (MIRA 13:6)
(Tractors--Maintenance and repair)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6

TOLKACHEV, N. T.

Vseotshchee voennoe obuchenie; ukazatel' literary. Universal military service;
bibliography Redaktor M.A. Krasnikov. Moskva, 1942. 86 p.

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6"

TOLKACHEV, Nikolai Timofeevich.

Military art; strategy, operations general tactics; bibliography. Moskva, 1943. 203 p.
(49-34464)

Z6721.V93

CSt-H

1. Military art and science - Bibl.
2. Russia - History, Military - Bibl.
- I. Tolkachev, Nikolai Timofeevich.
- II. Miasnikov, Mikhail Akimovich, 1894- ed.

TOLKACHEV, O.N.; VORONIN, V.G.; PREOBRAZHENSKIY, N.A.

Synthesis of brominated -phenylethylamines. Zhur. ob. khim. 28
no. 12:3320-3323 D '58. (MIRA 12:2)

1. Nauchnyy institut po udobreniyam i insektofungitsidam.
(Phenethylamine)

TOLKACHEV, O. N.

USSR/ Chemistry - Inorganic chemistry

Card 1/1 Pub. 22 - 27/62

Authors : Volkova, L. V.; Tolkachev, O. N.; and Preobrazhenskiy, N. A.

Title : Synthesis of bisbenzyltetrahydroisoquinoline esters

Periodical : Dok. AN SSSR 102/3, 521 - 524, May 21, 1955

Abstract : The synthesis of bisbenzyltetrahydroisoquinoline esters (medicinal compounds) from Beta-[2-methoxy-4-oxy-5-(4-carboethoxyphenoxy)phenyl] ethylamine, melting point 77-83°, and from beta-[2-methoxy-4(2'-methoxy-5'-carbomethoxymethyl-phenoxy)phenyl] ethylamide of formic acid, melting point 132-138° is described.

Institution : The M. V. Lomonosov Inst. of Prec. Chem. Technol., Moscow

Presented by: Academician I. L. Knumyants, January 7, 1955

MOSCOW INST OF FINE CHEMICAL TECHNOLOGY IMENI M. V. LOMONOSOV

TOLKACHEV, O. N. -- "The Synthesis of the Dimethyl Ether of the
Racemic Alkaloid Tubocurarine." Min Higher Education USSR. Moscow Inst
of Fine Chemical Technology imeni M. V. Lomonosov. Chair of the Technology
of Fine Organic Compounds. Moscow, 1956. (Dissertation for the Degree of
Candidate in Chemical Sciences)

SOURCES Knizhnaya Letopis', No 6 1956

TOLKACHEV, O.N.,

Biochemical-relationship of alkaloids of the isopquinoline series.
(MIRA 11:12)
Med. prom. 12 no.11:11-19 N '58

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
M.V. Lomonosova:
(QUINOLINE)

AUTHORS: Tolkachev, O. N., Voronin, V. G.,
Preobrazhenskiy, N. A.

sov/79-28-12-36/41

TITLE: Synthesis of Bromine-Substituted β -Phenyl-Ethyl Amines (Sintez
bromzameshchennykh β -feniletilaminov)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 12,
pp 3320 - 3323 (USCR)

ABSTRACT: β -(3-methoxy-4-oxy-5-bromo-phenyl)-ethyl amine (I) is an important intermediate product in the synthesis of dimethyl ether of the racemic alkaloid tubocurarine iodide (Ref 1). The synthesis of compounds of similar structure takes place in several steps and offers small yields (Refs 2-4). As the orientation in the halogenation (especially bromination) in similar molecules is not sufficiently explained the working out of the bromination of the substituted β -phenyl-ethyl amine is of certain importance to obtain the necessary bromine derivatives. Some chemists showed that from eugenol, isoeugenol, and olivine (Refs 5-8) 5-bromine-containing derivatives could be obtained, whereas from creosol (Refs 9, 10) and homovanilllic acid (Ref 11) as well as from dimethoxy, dibenzylloxy, and other derivatives 6-bromine isomers are formed (Refs 12-18).

Card 1/2

Synthesis of Bromine-Substituted β -Phenyl-Ethyl Amines SOV/79-28-12-36/41

It may be concluded therefrom that in the bromination the positions C₅ and C₆ are probable. In carrying out the reaction without solvents a mixture of these isomers and a small amount of the dibromine product were formed. Compound(I) in practically pure state is obtained by the bromination of compound (II) in acetic acid solution, as well as by the reduction of the compound (III) with aluminum-lithium hydride (Scheme 1). It was shown that the bromination of the acid sulfate of β -(3-methoxy-4-oxy-phenyl)-ethyl amine leads to the 6-bromine isomer. The hitherto unknown β -(3,4-dimethoxy-6-bromo-phenyl)-ethyl amine and β -bromo tyramine (XII) were synthesized as well. There are 23 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow Institute of Fine Chemical Technology)

SUBMITTED: October 23, 1957

Card 2/2

TOLKACHEV, O.N.; TSIZIN, Yu.S.; BELOUSOVA, M.A.; PREOBRAZHENSKIY, N.A.

Ultraviolet spectra and structure of diphenyl ethers. Zhur.ob.khim.
31 no.9:2987-2991 S '61. (MIRA 14:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
M.V.Lomonosova. (Biphenyl) (Ethers--Spectra)

AUTHORS:

Voronin, V. G., Tolkachev, O. N., Preobrazhenskiy, N. A.
GOV/20-121-3-17/47

TITLE:

The Synthesis of Methyl Ethers of Isomeric Chondrofolines,
Chondodendrines and Tubocurarines (Sintez metilovykh estirov
izomernykh khondrofolinov, khondodendrinov i tubokurarinov)

PERIODICAL:

Seklyady Akademii nauk SSSR, 1958, Vol. 121, Nr 3, pp.455-457
(USSR)

ABSTRACT:

Observing a molecule of d-tubocurarine (I) (Ref 1) two asymmetry centers can be seen. According to the classical theory this would imply the existence of two racemic forms and of four optically active isomers. Taking into account the fundamental theorems of conformation analysis of a tertiary base namely of chondodendrine and its quaternary salt tubocurarine four racemic formulae could be assumed solely because of the existence of isomery in the case of C₁ and C_{1'}. As a result of the cis- and trans-positions of the substituents on the nitrogen atom of tertiary bases and because of the conformation of tetra-hydro-isoquinoline nuclei the mentioned formulae of the main alkaloids of the tube curare do not

Card 1/3

SOV/20-121-3-17/47

The synthesis of Methyl Ethers of Isomeric Chondrofolines, Chondodendrines
and Tubocurarines

yet exhibit any isomery. Clear data on the configuration of tetra-hydro-isoquinolines are lacking in publications. According to latest papers it may be assumed that the nuclei of these compounds may exist in various shapes (chair-, tub shape) which are distorted as a result of the presence of an aromatic cycle in the condensed system of the mentioned nucleus. These types of isomery apparently occur also in curare alkaloids. That implies a corresponding increase of the amount of possible isomers. Moreover, that amount may further increase in consequence of the non-planar structure of the microcyclic diether system which cannot be clearly classified. The authors worked out the synthesis system of the substances mentioned in the title. This scheme is distinguished by the fact that the asymmetry centers do not occur before the last stages of synthesis. The latter are carried out under milder conditions which do not result in any isomerizations, transformations etc. Thus, by selection of suitable conditions the authors succeeded in carrying out the synthesis of 2 isomeric O-methyl-chondrofolines, 2 isomeric O,O'-dimethyl-chondodendrines and 4 isomeric O,O'-di-

Card 2/3

SOV/20-121-3-17/47

The Synthesis of Methyl Ethers of Isomeric Chondrofolines, Chondodendrines and Tubocurarines

methyl-tubocurarine-iodides. The process of synthesis and several produced salts of the mentioned substances are mentioned together with structure schemes. There are 1 figure, and 1 reference, 1 of which is Soviet.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov)

PRESENTED: March 7, 1958, by A. N. Nesmeyanov, Member, Academy of Sciences, USSR

SUBMITTED: March 7, 1958

Card 3/3

AUTHORS:

Voronin, V. G., Tolkachev, O. N.,
Preobrazhenskiy, N. A.

SOV/20-122-1-20/44

TITLE:

The Synthesis of Racemic Tubocurarine (Sirtez ratsemi-
cheskogo tubokurarina)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 1,
pp 77 - 79 (USSR)

ABSTRACT:

The effective substance of blow-pipe curare are the alkaloids of the bisbenzyl tetrahydro-isoquinoline group of unsymmetrical structure. Those alkaloids are distinguished from one another by the degree of methylation of nitrogen atoms and phenol hydroxyls. The following are secondary and tertiary bases: β -chondrofoline, d- and L-curarine and some others. The main representative of quarternary ammonium salts is d-tubocurarine chloride (tubocurarine, curarine) (X). Its physiological activity is great since it causes the relaxation of the cross-striated muscles. In spite of intensive investigations it has hitherto remained impossible to prove the chemical structure

Card 1/3

SOV/2o-122-1-2o/44

The Synthesis of Racemic Tubocurarine

of tubocurarine by synthesis. The authors brought about their scheme of synthesis of phenol alkaloids of the chondodendrine series by a subsequent structure of the system containing the elements of natural alkaloid (scheme on page 78). The process of the synthesis is described in detail. Its final stage is the formation of a macrocyclic system by closing the second ether binding to a chlorine hydrate (VII) with the melting point from 176-180°. By subsequent reduction it was possible to isolate 3 isomeric nor-chondrofolines (VIII): Chlorine hydrates: 1) With a melting point from 174 - 176°, 2) From 194-196° and 3) From 185-187,5°. The two former were changed to bi-tertiary bases by methylation. With respect to their composition the bases corresponded to chondodendrine (IX). On the strength of the carried out reactions the mentioned synthetic compound may be regarded as a racemate of the natural alkaloid.

Card 2/3

The Synthesis of Racemic Tubocurarine

SOV/20-122-1-20/44

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im.
M.V.Lomonosova (Moscow Institute of Fine Chemical Tech-
nology imeni M.V.Lomonosov)

PRESENTED: April 30, 1958, by A.N.Nesmeyanov, Member, Academy of
Sciences, USSR

SUBMITTED: April 28, 1958

Card 3/3

SOV/79-29-4-33/77

5(3)
AUTHORS:

Tolkachev, O. N., Voronin, V. G., Preobrazhenskiy, N. A.

TITLE:

Synthesis of the Dimethyl Ether of the Alkaloid (\pm) Tubocurarine Iodide (Sintez dimetilovogo efira alkaloida (\pm) tubokuraninyodida)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, pp 1192-1197 (USSR)

ABSTRACT:

The present paper describes the synthesis of these alkaloids according to the scheme mentioned which has rendered possible the synthesis of isomeric tertiary bases, the curines, and the salts of quaternary bases, the curarines. The scheme is based on the successive development of the system which contains elements of natural alkaloid the final stage of which is the formation of the second oxygen bridge: Compound (V) obtained by catalytic reduction of the relevant ω -nitrostyrene (Ref 7) is condensed with (VI) to (VII). The potassium salt of (VII), when transformed with the esters of (VIII) in the presence of copper, results in the compounds (IX, R=CH₃ or C₂H₅; R'=CH₂C₆H₅). The products obtained are saponified into the corresponding acid (IX, R=H, R'=CH₂C₆H₅) and debenzylated by Pd into the amide (IX, R=R'=H). The amide (X, R=H) results from (IX, R=CH₃ or C₂H₅; R'=CH₂C₆H₅)

Card 1/2

SOV/79-29-4-33/77

Synthesis of the Dimethyl Ether of the Alkaloid (\pm) Tubocurarine Iodide

and (XI) as well as from (IX, R=H, R'= $\text{CH}_2\text{C}_6\text{H}_5$) and (XI). The compound (X, R=H) is methylated with methyl iodide to form compound (X, R= CH_3) which is then cyclized with phosphorus oxychloride. In this process a mixture of phosphates and chlorides forms, from which the base (XII) is obtained. The benzyl-oxy group of this base is saponified and the resultant quinoline (XIII) is then transformed by heat into (XIV) in the presence of copper, potash, and pyridine. After the reduction with zinc dust, (XIV) is methylated to form (XVI). Compound (XVI) changes with methyl iodide into the dimethyl ether (\ddagger) of tubocurarine iodide (IV). Its ultraviolet spectrum is identical with the corresponding spectrum of the same ether of natural (\pm)-tubocurarine iodide. The test mixture of both products did not result in a depression of the melting point. There are 7 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow Institute of Fine Chemical Technology)

SUBMITTED: February 14, 1958
Card 2/2

DOROFEEYEVA, L.T.; ZHAROVA, T.V.; VOIKOVA, L.V.; TOLKACHEV, O.N.;
PREOBRAZHENSKIY, N.A.

Complex lipids. Synthesis of D-(--)- α -kephalins containing
residues of stearic and linoleic acids. Zhur. ob. khim. 34
no.9:2935-2939 S '64. (MIRA 17:11)

I. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
M.V. Lomonosova.

5(3)
AUTHORS:

Tolkachev, O. N., Cherkasova, A. A.,
Preobrazhenskiy, N. A.

SOV/79-29-5-46/75

TITLE:

Research in the Synthesis of Curare Alkaloids.
(Sinteticheskiye issledovaniya v oblasti kurarealkaloidov).
Synthesis of 2,3-Dimethoxy-5-Cyanomethyl-4'-Carboxy Diphenyl Ether
(Sintez 2,3-dimetoksi-5-tsianmetil-4'-karboksidifenilovogo efira)

PERIODICAL:

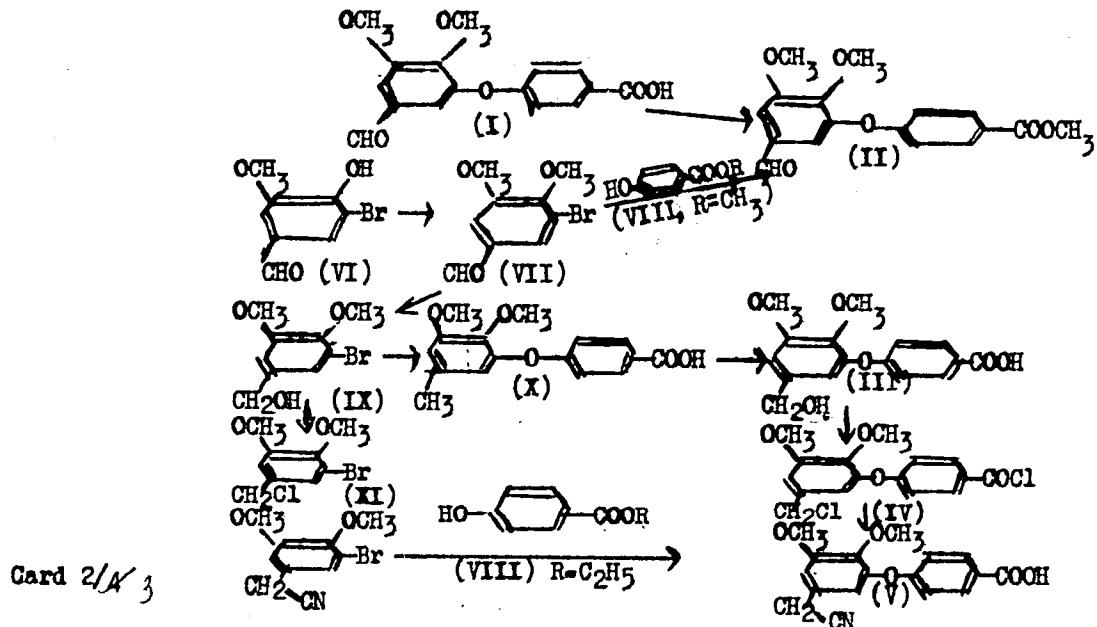
Zhurnal obshchey khimii, 1959, Vol 29, Nr 5, pp 1627-1631 (USSR)

ABSTRACT:

The compound (V) mentioned in the title - an intermediate product
in the synthesis of tubocurarine and isochondodendrine - was
prepared according to the following reaction scheme:

Card 1/4 3

Research in the Synthesis of Curare Alkaloids. SOV/79-29-5-46/75
 Synthesis of 2,3-Dimethoxy-5-Cyanomethyl-4'-Carboxy Diphenyl Ether



Research in the Synthesis of Curare Alkaloids.

SOV/79-29-5-46/75

Synthesis of 2,3-Dimethoxy-5-Cyanomethyl-4'-Carboxy Diphenyl Ether

As may be observed from the scheme, the transformation of the functional groups may take place in various stages of synthesis. Compound I is methylated to II by way of methyl iodide or dimethyl sulphate. This (II) is identical with the product of condensation of bromoveratrole aldehyde (VII) with the methyl ester of 4-oxy-azo-benzoic acid (VIII). The reduction of the aldehyde (according to Cannizzaro) leads to compound III. The same compound is obtained (besides compound X) by condensation of bromoveratralcohol with VIII. Compound III is converted to IV with thionyl chloride and cyanized to V. The same compound, however, may also be obtained from XII with 4-oxy-benzoic acid-ethyl-ester. The intermediate products were obtained as follows: vanillin was brominated with dioxan dibromide to 5-bromo vanillin (VI). This was methylated to VII and reduced to IX, converted to XI by means of thionyl chloride and cyanized to XII. The experimental describes the reactions carried out. There are 4 references, 2 of which are Soviet.

ASSOCIATION:
Card 3/A

Moskovskiy institut tonkoy khimicheskoy promyshlennosti
(Moscow Institute of Fine Chemical Industry)

5(3)

AUTHORS:

Tsizin, Yu. S., Tolkachev, O. N.,
Volkova, L. V., Preobrazhenskiy, N. A.

sov/79-29-5-47/75

TITLE:

Research in the Synthesis of Curare Alkaloids.
(Sinteticheskiye issledovaniya v oblasti kurarealkaloidov).
Synthesis of 2-Oxy-3-Methoxy-5-(β -Nitrovinyl)-4'-Carboxy
Diphenyl Ether (Sintez 2-oxi-3-metoksi-5-(β -nitrovinil)-4'-
karboksidifenilovogo efira)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, № 5, pp 1631-1635
(USSR)

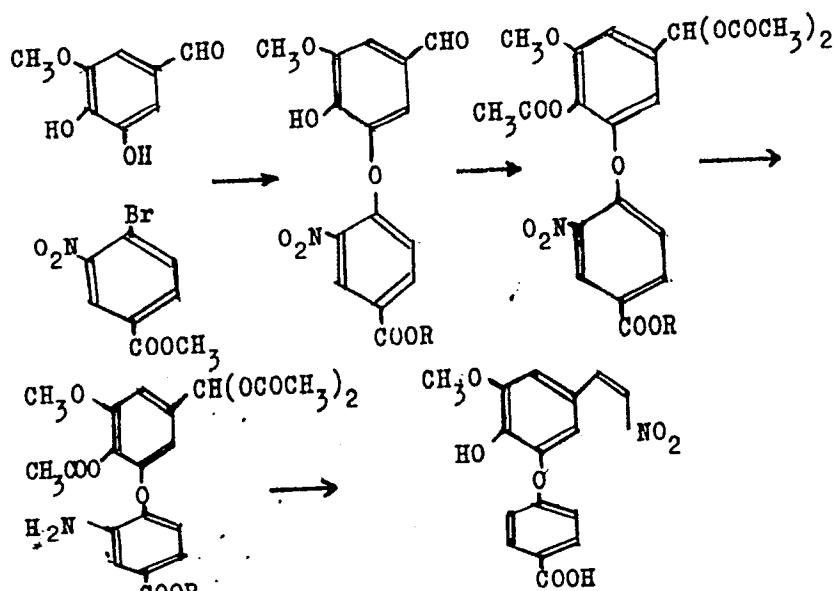
ABSTRACT:

The compound was obtained in two ways: a) condensation of 5-bromo vanillin with methyl- or ethyl ester of 4-oxy-benzoic acid or b) condensation of 3-methyl-"gallus" aldehyde with the methyl ester of 4-bromo benzoic acid. In the reaction according to a) the ethyl ester is preferable as methyl ester leads to an impure product by the formation of anisic acid and its ester. In order to obtain better yields, a new course of synthesis was worked out:

Card 1/3

SOV/79-29-5-47/75

Research in the Synthesis of Curare
Alkaloids. Synthesis of 2-Oxy-3-Methoxy-5-(β -Nitrovinyl)-4'-Carboxy
Diphenyl Ether



Card 2/3

Research in the Synthesis of Curare-like Alkaloids. Synthesis of 2-Oxy-3-Methoxy-5-(β -Nitrovinyl)-4'-Carboxy Diphenyl Ether

SOV/79-29-5-47/75

The nitro group was reduced with nickel by catalysis, whereas the amino group was removed by reduction of diazonium salt with hypophosphoric acid. By reaction with nitro methane the compound mentioned in the title is obtained. The experimental part describes the reactions and gives the data concerning the compounds obtained. There are 4 references.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova (Moscow Institute of Fine Chemical Technology imeni Lomonosov)

SUBMITTED: May 5, 1958

Card 3/3

TOLKACHEV, O.N.; PROKHOROV, A.B.; VORONIN, V.G.; KRIVKO, L.N.; PREOBRAZHENSKIY,
N.A.

Synthetic studies of curare alkaloids. Part 7: Synthesis of
2-methoxy-4-(β -acylaminoethyl)-2'-alkoxy-5'-carbalkoxymethyldiphenyl
esters. Zhur. ob. khim. 31 no.5:1540-1545 My '61. (MIRA 14:5)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.
Lomonosova.

(Alkaloids)

(Acetic acid)

SHVETS, V.I.; VOLKOVA, L.V.; TOLKACHEV, O.N.

Synthetic investigations in the field of curare alkaloids.
Part 9: Synthesis of a dimethyl ether of racemic chondrodendrine.
Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.3:445-448 '62.

(MIRA 15:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova, kafedra khimii i tekhnologii tonkikh organicheskikh
soyedineniy.

(Bebeerine)

VORONIN, V.G.; TOLKACHEV, O.N.; PREOBRAZHENSKIY, N.A.

Synthetic investigations in the field of curare alkaloids.
Part 10: Synthesis of dimethyl ethers (\pm)- tubocurarine
iodides. Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.3:449-452
'62. (MIRA 15:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova, kafedra khimii i tekhnologii tonkikh organicheskikh
soyedineniy. (Tubocurarine)

MOISEYENKO, A.M.; TOLKACHEV, O.N.; PREOBRAZHENSKIY, N.A.

Synthesis of 1-methoxy-²-carbethoxymethyl-2,4-dicarbethoxy-
4-hydroxymethyl-1-hexen-5-one. Zhur. ob. khim. 32 no.5:1418-
1420 My '62.
(MIRA 15:5)

I. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
M.V.Lomonosova.

(Hexenone)

TOLKACHEV, O.N.; KLIMOVA, L.I.; OLOVYANISHNIKOVA, Z.A.

Synthetic studies in the field of curare alkaloids.
Synthesis of 1-ethyliden-12-hydroxy-1,2,3,4,5,6,12,13a, 13b-decahydronaphthiridino-(1,7)-[7,8,1-1ma]- β carboline.
Zhur. ob. khim. 32 no.11:3828-3832 N '62. (MIRA 15:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii
imeni M.V. Lomonosova.

(Curare)
(Pyridoindole)

TOLKACHEV, O.N.; CHERNOVA, V.P.; KUZNETSOVA, E.V.; BAO FAN-LIN' [Pao Fang-lin];
PREOBRAZHENSKIY, N.A.

Synthetic investigations in the field of curare alkaloids. Part II:
Synthesis of 5-bromo-substituted β -phenylethylamines. Zhur. ob. khim.
34 no. 2: 545-548 '64. (MIRA 17:3)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova.

TOLKACHEV, O.N.; YAGUBSKIY, E.B.; DOROFYEVA, L.T.; PREOBRAZHENSKIY, N.A.

Synthetic investigations in the field of curare alkaloids. Part 12:
Synthesis of 1-(4'-hydroxybenzyl)-6-methoxy-7-alkoxy-8-bromo-3,4-

dihydroquinolines. Zhur.cb.khim. 34 no.2:548-552 F '64.(MIRA 17:3)
I. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.
Lomonosova.

ACC NR: AP6033176

SOURCE CODE: UR/0079/66/036/010/1764/1766

AUTHOR: Tolkachev, O. N.; Kvashnina, L. P.; Preobrazhenskiy, N. A.

ORG: Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Synthetic studies in the area of curare alkaloids. Part 15: Synthesis of monomethyl ester of racemic N,N'-demethylchondodendrine

SOURCE: Zhurnal obshchey khimii, v. 36, no. 10, 1966, 1764-1766

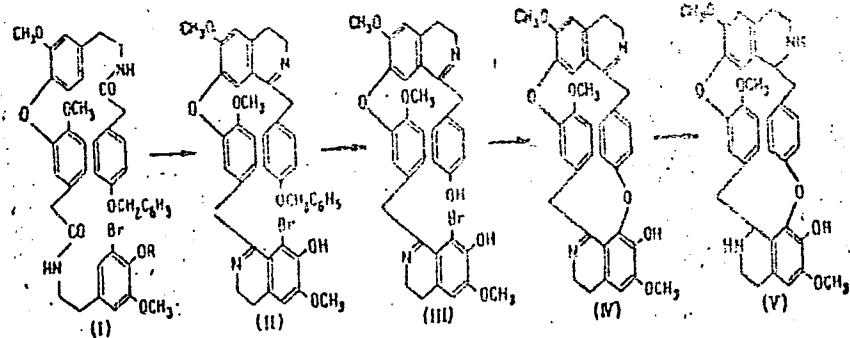
TOPIC TAGS: alkaloid, curare, chemical synthesis

ABSTRACT: In view of the important physiological effect of the alkaloid d-tubocurarine, it appeared of interest to synthesize other (genetically related) alkaloids of tubocurare. The influence of the structural and spatial elements of the molecule on the physiological action of d-tubocurarine could thus be determined. Monomethyl ester of racemic N,N'-demethylchondodendrine (V) was synthesized so that it could be compared with the natural dissecondary base chondrofoline. The synthesis was as follows:

Card 1/2

UDC: 547.944.2

ACC NR: AP6033176



Like the natural alkaloid chondrofoline, the cyclic bases (V) obtained give a negative reaction with Millon's reagent. UV spectra of their hydrochlorides are similar to those of d-tubocurarine. Orig. art. has 1 figure.

SUB CODE: 07 / SUBM DATE: 07Jun65 / ORIG REF: 001 / OTH REF: 003

Card 2/2

ACC NR: AP6033177

SOURCE CODE: UR/0079/66/036/010/1767/1772

AUTHOR: Tolkachev, O. N.; Chornova, V. P.; Bao Fan-lin'; Kuznetsova, E. V.; Proobrazhenskiy, N. A.

ORG: Moscow Institute of Chemical Technology imeni M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Synthetic studies in the area of curare alkaloids. Part 16: Synthesis of 1-(3'-bromo-4'-methoxybenzyl)-6,7-dimethoxy-8-bromo-N-methyl-1,2,3,4-tetrahydroisoquinoline

SOURCE: Zhurnal obshchey khimii, v. 36, no. 10, 1966, 1767-1772

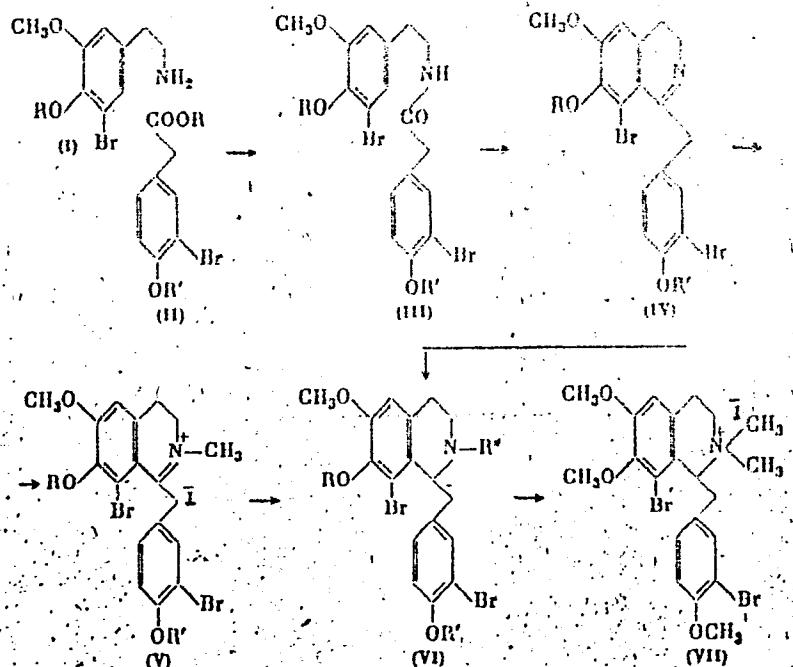
TOPIC TAGS: alkaloid, isoquinoline, *chemical synthesis*

ABSTRACT: 3',8-Dibromo-N-methylcoclaurine (VI, R = R' = H, R" = CH₃) is an intermediate in the synthesis of the alkaloid tubocurarine. Dimethyl derivatives of this compound (VI, R = R' = R" = CH₃) were synthesized as follows:

Card 1/3

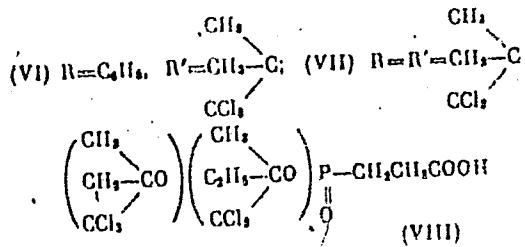
UDC: 547.944.2

ACC NR: AP6033177

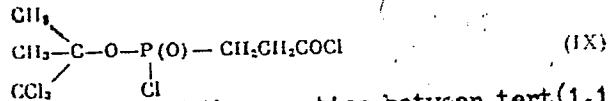


Card 2/3

ACC NR: AP6032903



The compound



was isolated from the products of the reaction between tert(1,1,1-trichloro)butyl-phosphorous acid dichloride and acrylic acid. Orig. art. has: 1 figure.

SUB CODE: 07/ SUBM DATE: 15Apr66/ ORIG REF: 011/ OTH REF: 004

Card 3/3

ACC NR: AP6030550

SOURCE CODE: UR/0413/66/000/016/0030/0030

INVENTOR: Luk'yanov, A. V.; Tolkachev, O. N.

ORG: none

TITLE: Preparation of an ortho ester of myoinositol. Class 12, No. 184841
[announced by Moscow Institute of Fine Chemical Technology im. Lomonosov (Moskovskiy
institut tonkoy khimicheskoy tekhnologii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 30

TOPIC TAGS: myoinositol ortho ester preparation, ~~biologically active~~,
myoinositol ortho formate, ~~p-toluenesulfonic acid catalyst~~, cyclic alcohol, cyclohexane,
isomer, toluene, acid catalyst, sulfonic acid, ester, myoinositol

ABSTRACT: To broaden the choice of starting materials for the preparation
of biologically active orthoesters of myoinositol, e.g., 1,2,5-ortho-
formate, myoinositol is heated with ethyl orthoformate in the presence
of p-toluenesulfonic acid as catalyst in toluene with subsequent
removal of the solvent and chromatographic isolation on alumina.
[WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 16Jul65/

Card 1/1

UDC: 547.593.261

ABOLMASOV, A.P. [translator]; TOLKACHEV, P.F. [translator];
TOPORKOV, G.N., red.; GRUSHIN, A.V., tekhn. red.

[Typhoon is coming!] Idet taifun! ~~Pravda na vode. 6. 1963.~~
~~Zhurnal nauchno-tekhnicheskoy izd-vo inostr. 34 t-vy, 1963. 218 p.~~
(MIRA 17:1)

LOPUKHOV, N.D., kand. tekhn. nauk; MOKS, E.V., inzh.; TOLKACHEV, P.I., inzh.

Technology of preparing soil cement and laying pile foundations
made of it and foundations without earthwork. Trudy Zap.-Sib. fil.
ASiA no.7:145-156 '62. (MIRA 18:2)

~~SEREBRENNIKOV, S.S., inzh.; TOLKACHEV, P.I., inzh.~~

Using large blocks in building chimneys and industrial furnaces.
Nov. tekhn. i pered. op. v stroi. 20 no.2:6-11 F '58.

(MIRA 11:2)

(Chimneys) (Furnaces) (Concrete blocks)

TOLKACHEV, P.I., inzh.; LATASH, M.M.

Assembling chimneys made of large annular blocks. Mont.i spets.rab.
v stroi. 22 no.6:7-8 Jl '60. (MIRA 13:7)

1. Trest Soyuzteplostroy.
(Chimneys)

SEREBRENNIKOV, S.S., inzh.; TOLKACHEV, P.I.

Improving the technology of constructing industrial furnaces
and chimneys. Nov.tekh.mont. i spets.rab. v stroi. 21 no.1:
9-13 Ja '59. (MIRA 12:1)

1. Trest Soyuzteplostroy.
(Furnaces) (Chimneys)

TOLKACHEV, P.I., inzh.; BORISOV, V.P., inzh.

High-temperature furnace made of heat-resistant reinforced
concrete blocks. Stroi.prom. 35 no.9:32-35 no.9:32-35 S '57.
(Furnaces) (MLRA 10:10)

BEL'SKIY, V.I.; BORISOV, B.V.; VOLYNTSEV, V.A.; GOYKOLOV, Ye.F.; ZHOVNI-
ROVSKIY, N.V.; ISSERS, A.Ye.; MAKAROV, N.S.; ROTNITSKIY, M.L.;
TEBEH'KOV, B.P.; TROITSKIY, V.A.; CHERNOV, A.V., inzh.; AGURIN,
A.P., nauchnyy red.; SOLODEHNICKOV, L.D., nauchnyy red.; TOLKACHEV,
P.I., nauchnyy red.; KHLUDYEYEVA, Ye.O., red.izd-va; EL'KINA, E.M.,
tekhn.red.

[Handbook on special operations; construction of industrial
furnaces] Spravochnik po spetsial'nym rabotam; sooruzhenie pro-
myshlennyykh pechei. Pod red. A.V.Chernova. Izd.3., ispr. i dop.
Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam,
1960. 694 p. (MIRA 13:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut
"Teploproyekt."
(Furnaces--Construction)

BEL'SKIY, V.I.; VASIL'YEV, Ye.S.; TOLKACHEV, P.I.; KUDRYAVTSEV, A.V.,
nauchnyy red.; ZVORYKINA, L.N., red.izd-va; MOCHALINA, Z.S.,
tekhn. red.

[Construction of industrial kilns, furnaces and smokestacks of
heat-resistant concrete] Stroitel'stvo promyshlennykh pechei i
trub iz zharostoikogo betona. [By] V.I.Bel'skii, E.S.Vasil'yev,
i P.I.Tolkachev. Moskva, Gosstroizdat, 1962. 267 p.
(MIRA 16:3)

(Industrial plants--Design and construction)
(Concrete construction)

TOIKACHEV, P.T., agronom; ANISKIN, V.N.

Our practice in organizing crop rotations and in fertilizing fields.
Zemledelie 5 no.4:64-66 Ap '57. (MLBA 10:6)

1. Kolkhoz "Krasnyy fakel", Mstislavskogo rayona, Mogilevskoy
oblasti (for Tolkachev).
(Rotation of crops) (Fertilizers and manures)

Azatyan, A.

USSR/Electronics

Card : 1/1. Pub. 89 - 15/24

Authors : Azatyan, A. and Tolkachev, S.

Title : Use of Germanium diodes of the DG-Ts(47 - II) type

Periodical : Radio 6, 34 - 37, June 1954

Abstract : Germanium diodes of the DG-Ts type, having a high breakdown-voltage and low resistance to DC current, are discussed. Methods of detection (by means of these diodes) of amplitude-modulated and frequency-modulated signals in radio receivers and of television picture signals, as well as other applications of diodes, such as their use for increasing the efficiency of oscillators, are described in detail. Diagrams; graphs.

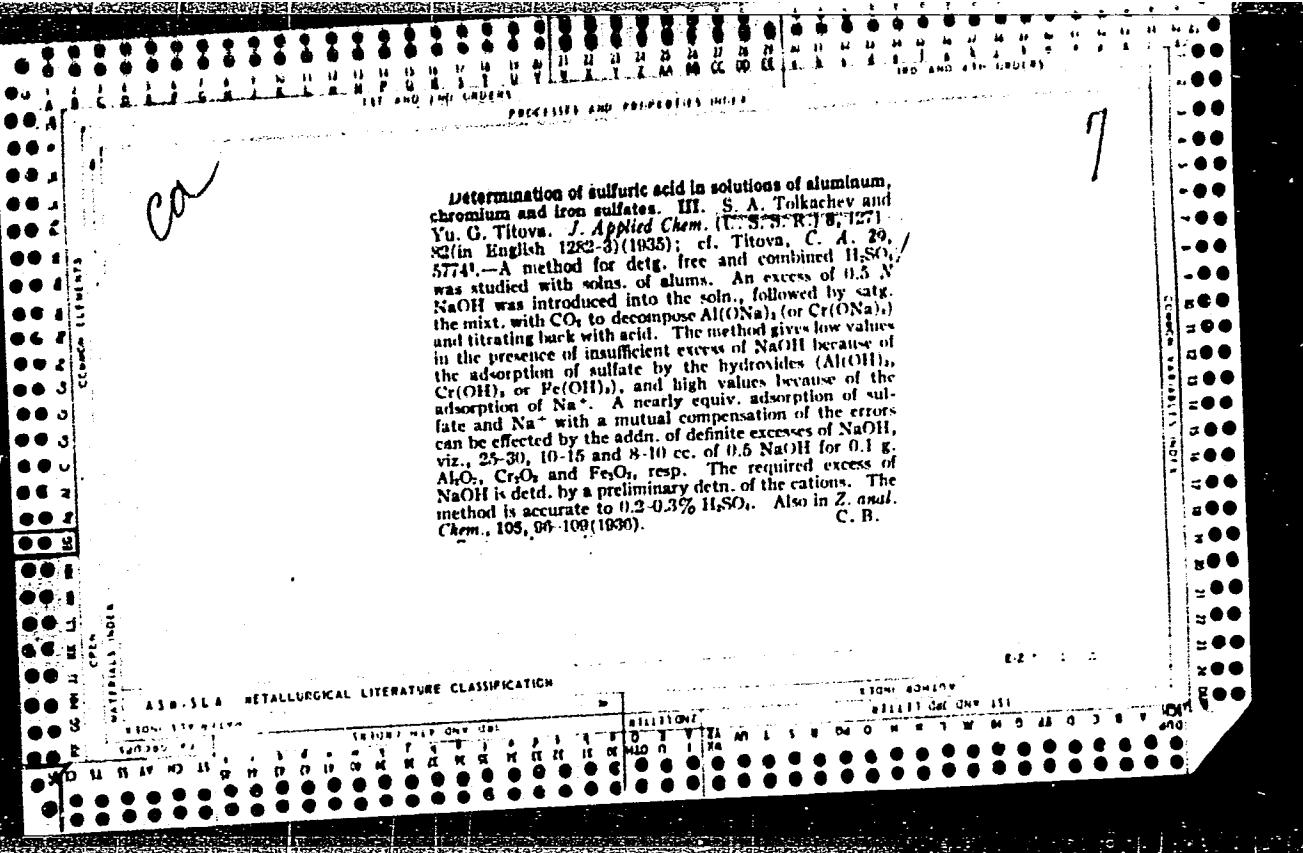
Institution : ...

Submitted : ...

A.C.S.

Chemistry + Physics
13

Use of oxine (o-phenylenediamine) method for determining aluminum oxide in materials with a high iron content. B. A. TOLKACHEVA, T. P. KONSTANTINA, AND V. N. DUKAS. Trudy Vsesoyuz. Nauch.-Issledovatel. Inst. Ogneupornykh i Kislotoupornykh Materialov, No. 7, pp. 3-21 (1939). M.V.C.



TOLKACHEV, S.

PA 27T26

USSR/Engineering

Oct 1947

Trucks - Performance

Trucks - Design

"Increased Cargo Carrying Capacity for ZIS-5 Truck,"
S. Tolkachev, Engr, 2½ pp

"Avtomobil'" No 10

A method of adding a reinforcing frame on the under-side of a truck body has increased the cargo carrying capacity of trucks at Kolyma Auto Transport. This method has been in use for several years and has given satisfactory service. The author discusses the methods of fastening this reinforcing frame to the truck body and also gives a list of part serial numbers. This frame is known as the "third bridge."
LC

27T26

TOLKACHEV, S.

Using special trailers for hauling freight, weighing 63.5 ton. Avt.
transp. 36 no. 3:8 Mr '58.
(MIRA 11:3)

1. Zamestitel' nachal'nika upravleniya avtotransporta Bratskoy
gidroelektricheskoy stantsii.
(Truck trailers)

TOLKACHEV, V.inzh.

"Repairing large-panel buildings" by G.B.Dubravin. Reviewed by
V.Tolkachev. Zhil.stroi. no.5:32 My '61. (MIRA 14:6)
(Apartment houses—Maintenance and repair) (Dubravin, G.B.)

TOLKACHEV, V.P., inzh.; KLIMOV, N.N., inzh.; DANILOV, V.I., inzh.

Replies to the inquiries of our readers. Elek. i tepl. tiaga 5
no. 3:44 Mr '61. (MIRA 14:6)
(Railroads--Brakes)

TOIKACHEVA, A., inzhener.

Painting unit without a blower. Stroitel' no.3:8 Mr '57.
(Spray painting) (MIRA 10:4)

TOLKACHEVA, S.

USSR/Electronics - Diodes

Card 1/1

Authors : Azatyan, A. and Tolkacheva, S.

Title : Characteristics of Germanium Diodes of the Type $\Delta\Gamma$ -II ($DG-Ts$)

Periodical : Radio 5, 39 - 41, May 1954

Abstract : The article begins with a reference to an article entitled "Germanium Diodes", by Puzhay and Goldenberg, published in Radio No. 5, 1953. The present article stresses the advantages of the germanium diodes over the vacuum tube type diodes. A detailed table listing the parameters of the DG-Ts type diodes, and graphs are featured. One of these graphs gives the comparative volt-ampere characteristics of several DG-Ts (germanium type)diodes and of analogous vacuum tube type diodes. On another graph, the germanium diodes' frequency characteristics are given, while the remaining graph shows the diodes' volt-ampere characteristics for various temperatures.

Institution :

Submitted :

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6"

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6"

1. GORDON, L. V., TOLKACHEV, A. K.
2. USSR (600)
4. Tree Tapping
7. Basic principles in the technology of fifteen-year turpentine of pine.
Der. i lesokhim. prom. 1 No. 5, 1952
9. Monthly List of Russian Accessions, Library of Congress, March 1953, Uncl.

AGURIN, A.P.; BORISOV, P.V., inzh.; VOLYNTSEV, inzh.; GOYKOLOV, Ye.F.,
GROMAKOV, G.P.; SEREBRENNIKOV, S.S., inzh.; TOLKACHEV, P.I.,
inzh.; TYULENEVA, L.M., red.izd-va; MEDVEDEV, I.Ya., tekhn.
red.; EL'KINA, E.M., tekhn.red.

[Handbook on refractory linings of industrial furnaces] Spravochnik po ogneupornoj kladke promyshlennyykh pechei. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit.materiamam, 1960.
349 p.
(MIRA 13:5)

1. SOYUZTEPLOSTROY, trust, Moscow. 2. Ordona Trudovogo Krasnogo Znameni trest Soyuztepstroy (for all except Tyuleneva, Medvedev, El'kina).

(Furnaces)

(Refractory materials)

D'YACHENKO, P.Ye., doktor tekhnicheskikh nauk, professor; TOLKACHEVA, N.N.,
kandidat tekhnicheskikh nauk.

Radioisotopic determination of wall thicknesses. Vest.mash.35 no.9:
12-15 S '55. (MLRA 9:1)
(Measuring instruments) (Radioisotopes--Industrial applications)

USSR.

Studies of electrodialysis on isolated and living skin of animals and humans. D. A. Fridrikhsberg and S. S. Torukheva. *Izdatelstvo Znaniye, Leningrad*, 1957, 56.
A. A. Zhidkov. No. 150, Sov. Krem. Map, No. 10, U.S.S.R. (1951).—In expts. on rabbits, piglets, and human subjects, with use of solns. of NaCl, KCl, CaCl₂, MgSO₄, AlCl₃, HCl, HOAc, iodine, codeine phosphate, platypophiline, methylene blue, and similar substances, at v. high concns., it was shown that in live skin (as distinguished from isolated skin), movement of materials takes place exclusively by ion phoresis, and not at all by electrodialysis. Tests were conducted in the e.d. range 0.2-0.5 ma./cm.². In expts. with AlCl₃, platypophiline, and methylene blue, an anomalous reversal of current was attributed to overcharging the skin.

C. H. Furchtgott

U S S R .

The determination of the transference number of ions (ionophoresis) on isolated and living skin of animals and humans. D. A. Fridrichsberg and S. S. Tolkaichev. *Uchenye Zapiski, Leningrad. Gosudarst. Univ. im. V. A. Zhdana* No. 150, Ser. Khim. Nauk. No. 10, 137-53(1951). — The values of the ionophoretic transference no. (n) were determined by use of diaphragms of isolated skin (I) and living skin (II). The results were independent of the source of the skin (rabbits, piglets, humans). For I the values were: Cl^- (in 0.01*N* NaCl), 0.52 ± 0.03 ; Na^+ (in 0.01*N* NaCl), 0.48 ± 0.03 ; Mg^{++} (in 0.1*N* MgSO_4), 0.44 ± 0.02 ; Cu^{++} (in 0.1*N* CuSO_4), 0.10 ± 0.04 ; methylene blue cation (0.1% methylene blue, with or without addition of glucose or alcohol), 0.602 ± 0.001 ; 0.001 ± 0.003 ; cocaine cation (in 0.5-2% cocaine phosphate), 0.08 - 0.12 ± 0.02 ; tydol cation (in 0.5% tydol), 0.007 - 0.10 ; platiphylline cation (in 5% platiphylline), 0.048 . II shows asymmetric characteristics.

The values for n in II are: Cl^- (in 0.01*N* NaCl), 0.65 ± 0.02 ; I (in 0.02*N* NaI and 0.005-0.03*N* KI), 0.51 ± 0.02 - 0.58 ± 0.03 ; Na^+ (in 0.01*N* NaCl and 0.02-0.1*N* NaNO_3), 0.66 ± 0.04 - 0.67 ± 0.02 ; Mg^{++} (in 0.1*N* MgSO_4), 0.43 ± 0.02 ; cocaine cation (in 0.1% cocaine phosphate), 0.08 - 0.28 ; dianin cation (in 1-3% dianin), 0.18 ± 0.03 .

C. H. Fuchsman

TOLKACHEV, S.S.

USSR/Chemistry - Lead Dioxide May 52

"Structure of the alpha-Modification of Lead Dioxide,"
A. I. Zaslavskiy, S. S. Tolkachev, Leningrad Order
of Lenin State U imeni A. A. Zhdanov

"Zhur Fiz Khim" Vol XXVI, No 5, pp 743-752

Investigated the structure and anodic texture of a
new modification of PbO₂, alpha lead dioxide.

219T11

ZASLAVSKIY, A.I.; TOLKACHEV, S.S.

Structure of the rhombic modification of lead dioxide. Uch. zap.
Len.un. 163:186-205 '53.
(MLRA 9:6)

1.Kafedra analiticheskoy khimii LGOLU.
(Lead oxides) (Crystallochemistry)

TOLKACHEV, S. S.

"Oxides of Lead, and Their Structures in the Light of the Dense Packing Theory." Leningrad Order of Lenin State University imeni A. A. Zhdanov, Leningrad, 1955. (Dissertation for the Degree of Candidate of Chemical Sciences.)

SO: M-972, 20 Feb 56

TOLKACHEV, SERGEY SERGEYEVICH

N/5
613.648
.T6

Tablitsy mezhplanetarnykh rasstoyaniy [Tables of Interplanetary distances] 7

Leningrad, Izd-Vo Leningradskogo Universiteta, 1955. 144 P. Tables.

At head of title: Leningradskiy Ordena Lenina Gosudarstvenny universitet.

SHUBNIKOV, A.V., akademik; ZHELUDOV, I.S.; KONSTANTINOVA, V.P.;
SIL'VESTROVA, I.M.; TOLKACHEV, S.S., redaktor; ABONS, R.A.
tekhnicheskiy redaktor.

[Research on piezoelectric crystal patterns] Issledovanie
p'ezoektricheskikh tekstur. Moskva, Izd-vo Akademii nauk
SSSR, 1955. 188 p. (MLRA 8:9)
(Piezoelectricity)

THE CONFERENCE ON THERMAL ANALYSIS

BERG, L.G., professor, redaktor; TOLKACHEV, S.S., redaktor; SMIRNOVA,
A.V., tekhnicheskij redaktor.

[Proceedings of the conference on thermal analysis (Kazan, 1953)]
Trudy pervogo soveshchaniia po termografii (Kazan', 1953). Moscow
1955. 333 p.
(MLRA 8:11)

1. Akademiya nauk SSSR. Kazanskij filial.
(Thermal analysis)

TROFIMOV, A.K.; TOLMACHEV, S.S.

Luminescence spectrum analysis of the polymorphic change of γ - α
 Al_2O_3 . Dekl.AN SSSR 104 no.1:54-55 S '55. (MIRA 9:2)

1.Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova.
Predstavlene akademikom A.N.Tereninym.
(Aluminum oxides--Spectra) (Luminescence)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6"

VOLKACHEV S.S.

SUBJECT: USSR/Luminescence

48-5-49/56

AUTHORS: Trofimov A.K. and Tolkachev S.S.

TITLE: Luminescent Method of Observations of Some Crystallochemical Transformations in Solid Phases (Lyuminestsentsnyy metod nablyudeniya nekotorykh kristallokhmicheskikh prevrashcheniy v tverdykh fazakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957,
Vol 21, # 5, pp 761-762 (USSR)

ABSTRACT: This investigation treats the possibility of using line spectra of luminescence for qualitative observations of the kinetics of some processes in solid phases which are accompanied by changes of crystalline structure: the formation of mixed crystals in the system $\text{CaF}_2 - \text{SrF}_2$, polymorphic transformations $\gamma\text{-Al}_2\text{O}_3 - \alpha\text{-Al}_2\text{O}_3$, and chemical reactions.
The method used consists in photographing luminescence spectra of individual samples of phosphors activated by rare earths (Eu or Sm) or chromium and produced on the basis of substances participating in crystallochemical transformations.

Card 1/2

TITLE:

Luminescent Method of Observations of Some Crystallochemical Transformations in Solid Phases (Lyuminestsentnyy metod nablyudeniya nekotorykh kristallokhimicheskikh prevrashcheniy v tverdykh fazakh)

48-5-49/56

The observation results of the above-mentioned processes obtained by luminescence spectra have been confirmed by the control X-ray method and agree with the known literature data.

This luminescence method has some advantages over other methods, in particular the roentgenographic one, principally in speed and simplicity.

The use of this method, however, is restricted by some peculiarities of crystallophosphors connected mainly with their general properties.

This article was published in greater detail in the Vestnik Leningradskogo Gos. Universiteta, 4, Issue #1, 102 (1957) One Russian reference is cited.

INSTITUTION: Not indicated (presumably Leningrad University)
PRESENTED BY:

SUBMITTED: No date indicated

AVAILABLE: At the Library of Congress

Card 2/2

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6

Sommerfeld rule, crystal structure, X-ray diffraction, Grimm
ABSTRACT: Some ternary compounds

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6"

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6

ACCESSION NR. 1984-00000000

FOUR IN ALUMINUM CUPPER AND GERMANIUM. A still larger disk version is

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6"

AUTHOR: Kozhina, I. I.; Popov, Yu. G.; Tolkachev, S. S.

15
R

TOPIC TAGS: Heteropolymer

Heated to 900°C to prevent decomposition. X-ray diffraction analysis - proposed to consist of two parts, one of which

Card 1/3

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6"

L 43976-66 E#T(m)/EMP(t)/ETI IJP(c) ES/JD/WW/JG

ACC NR: AP6022502

SOURCE CODE: UR/0054/66/000/001/0129/0132

AUTHOR: Kozhina, I. I.; Osipova, V. V.; Solntsev, V. M.; Tolkachev,
S. S. (deceased)

ORG: none

TITLE: Certain properties of uranium pentoxydeSOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii,
no. 1, 1966, 129-132TOPIC TAGS: uranium compound, inorganic oxide, x ray analysis, heat
resistance

ABSTRACT: The dimensions of the hexagonal cell of U_2O_5 were measured and the thermal stability of U_2O_5 was determined. The hexagonal cell size was established: $a = 6.814 \pm 0.001$ kX and $c = 4.118 \pm 0.001$ kX. The composition of the hexagonal phase of U_2O_5 obtained at low temperatures varies within the range $U_02_{50}^{50}-U_02_{64}$. U_2O_5 is disproportionated at temperatures above 145°C to 2 phases: hexagonal and cubic. At temperatures of $145 - 170^{\circ}\text{C}$ hexagonal U_3O_8-x and cubic U_02+y are formed; and at $800 - 1000^{\circ}\text{C}$, hexagonal U_3O_8-x and cubic U_4O_9 ,

Card 1/2

UDC: 546.791-31:548.73

L 43978-66

ACC NR: AP6022502

a = 5.43 ± 0.01 Å are formed. Orig. art. has: 3 tables.

SUB CODE: 07/ SUBM DATE: 02Ju165/ ORIG REF: 004/ OTH REF: 007

Card 2/2 ULR

L 20200-66 EMT(m)/T/EMT(t) IJP(c) JD
ACC NR: AP6006829 SOURCE CODE: UR/0181/66/008/002/0451/0456

AUTHOR: Belozerskiy, G. N.; Nemilov, Yu. A.; Tolkachev, S. S. (Deceased)

ORG: none

TITLE: Using the Mössbauer effect and x-ray structural analysis to investigate oxidation in InSb

SOURCE: Fizika tverdogo tela, v. 8, no. 2, 1966, 451-456

TOPIC TAGS: Mossbauer effect, Mossbauer spectrum, x ray diffraction analysis, indium compound, antimonide, spectrum analysis, oxidation

ABSTRACT: The authors use the Mössbauer effect to study the result of various external processes with respect to changes in the structure of surface layers in a crystal. An indium antimonide crystal was selected and a Co⁵⁷ source was used. It was learned in previous studies that the Fe⁵⁷ Mössbauer spectrum in an annealed InSb specimen at room temperature differs sharply from the spectra of specimens without annealing. This phenomenon is studied in detail in this paper. It is found that heating of specimens at 200°C for 25 hours results in no noticeable change in the form of the Mössbauer spectrum for specimens with or without annealing. Data

Card 1/2

L 20200-66

ACC NR: AP6006829

from x-ray analysis of specially annealed specimens of InSb are used for interpreting the results of the Mössbauer spectral analysis. It was found that two phases formed in the surface layer of indium antimonide during heating. These phases are the result of oxidation of indium and antimony atoms in In_2O_3 and Sb_2O_4 . There is an initially rapid increase in the In_2O_3 phase with subsequent predominance of the Sb_2O_4 phase. It is found that the Mössbauer spectra may be divided into three lines and that the temperature relationships for the first and third lines are anomalous. A theoretical explanation is given for the temperature behavior of these two states. In conclusion we thank A. N. Murin for interest in the work and I. A. Gusev, A. V. Shvedchikov and I. N. Chugunov for assistance with the work. Orig. art. has: 4 figures, 1 table, 2 formulas.

SUB CODE: 20 / SUBM DATE: 15Jul65 / ORIG REF: 003 / OTH REF: 001

Card 2/2

mjs

KOZHINA, I.I.; RISKIN, I.V.; ROGOVA, T.V.; TOLKACHEV, S.S.

Crystal structure and color in the system Cd - Zn - S.
Vest. LGU 20 no.4:128-136 '65.

(MIRA 18:4)

KOZHINA, I.I.; TOLKACHEV, S.S.

Thermal expansion of diamonds. Vest. LGU 20 no.10:91-94 '65.

(MIRA 18:7)

KOZHINA, I.I.; POPOV, Yu.G.; TOLKACHEV, S.S.

Solid solutions in the system titanium - sulfur. Vest. IgU 19
no.22:115-120 '64
(MIRA 18:1)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756110004-6

KOZHINA, I.I.; TOLKACHEV, S.S.

Distortion of valence angles in the diamondlike crystal lattices
of ternary compounds. Vest. LGU 19 no.16:154-157 '64.

(MIRA 17:11)

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CIA-RDP86-00513R001756110004-6"

BULASHEVICH, Ye. A.; TOLKACHEV, S. S.

Preparation of aluminum oxide dihydrate. Vest. LGU 19 no.10:
123-124 '64. (MIRA 17:7)

KATS, Anatoliy Moiseyevich; TOLKACHEV, S.S., red.; BODANOVA, A.P.,
tekhn. red.

[Repair of motor-vehicle bodies] Remont avtomobil'nykh kuzovov.
Izd.4., perer. i dop. Moskva, Avtotransizdat, 1962. 346 p.
(MIRA 15:7)
(Motor vehicles--Bodies)

KOZHINA, I.I.; TOLKACHEV, S.S.; BORSHCHEVSKIY, A.S.; GORYUNOVA, N.A.

Study of the GaAs - Ga_2S_3 system. Vest. LGU 17 no.4:122-127 '62.

(MIRA 15:3)

(Gallium arsenide)(Gallium sulfide)

35350

S/054/62/CCO/CG1/CG5/C11
B121/B138

26.11.70

AUTHORS:

Kozhina, I. I., Tolkachev, S. S., Borshchevskiy, A. S.,
Goryunova, N. A.

TITLE:

Examination of the system GaAs - Ga_2S_3

PERIODICAL:

Leningrad. Universitet. Vestnik. Seriya fiziki i khimii,
no. 1, 1962, 122-127

TEXT: To study the interactions thoroughly, the intermediate stages were examined by X-ray, thermal, and microstructural analyses. The alloys were produced by direct fusion of gallium, arsenic, and sulfur in evacuated quartz ampoules between 1200 and 1300°C. Homogenization of the alloys was reached by annealing the samples at 900°C in evacuated quartz ampoules in a ТГ-3 (TG-3) crucible furnace. X-ray structural analyses were conducted in a РПК-2 (RPK-2) chamber 57.3 mm in diameter by the asymmetrical method. The microhardness of the alloys was determined with a ПМТ-3 (PMT-3) device. An ФПК-55 (FPK-55) device was used for differential thermal analysis. Altogether 17 alloys of varying compositions were studied in the section Ga_3As_3 - Ga_2S_3 . Their coloring changed from gray with a metallic luster

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Examination of the system ...

S/054/62/000/001/008/011
B121/B138

(GaAs) to light yellow (Ga_2S_3). The heating and cooling curves of Ga_2S_3 showed three thermal effects at $997\text{-}1010^\circ$ and $1085\text{-}1104^\circ\text{C}$, and a very weak effect at 1130°C . X-ray structural analyses showed the pure Ga_2S_3 phase to have a wurtzite lattice with the constants $a = 3.68 \text{ \AA}$ and $c = 6.01 \text{ \AA}$; the interatomic distance of Ga - S is 2.00 \AA . The wurtzite structure of Ga_2S_3 changes into a sphalerite structure by a GaAs addition of 3-4%. Further GaAs additions to Ga_2S_3 cause expansion of the sphalerite lattice structure. Orientation tests showed the alloys of gallium arsenide and gallium sulfide to be photosensitive. Non-homogeneous alloys, however, are more photosensitive than homogeneous ones. Equilibrium in the system Ga - Se - S is difficult to reach. If the alloys are sufficiently homogenized, they behave like systems with continuously solid solutions. There are 6 figures, 1 table, and 11 references: 8 Soviet and 3 non-Soviet.

SUBMITTED: May 23, 1961

Card 2/2

V

POKROVSKIY, Aleksandr Nikolayevich; BUKIN, Aleksandr Alekseyevich; GAV-
RILOV, Dmitriy Fedorovich; TOLKACHEV, S.S., retsenzent; GONCHA-
L.R.U.K., red.; STRYZHKOVA, N.I., red. izd-va; NIKOLAYEVA,
L.N., tekhn. red.

[Operating motortrucks with carburetor engines under low temperature
conditions] Ekspluatatsiia avtomobilei s karbiuratornymi dvigatelemi
v usloviakh nizkikh temperatur. Moskva, nauchno-tekhn. izd-vo M-va
avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1961. 171 p.
(Motortrucks—Cold weather operation) (MIRA 14:10)